

P.O. Box 1288 Millersville, MD 21108 410-987-4286 FAX 410-987-3633

July 19, 2011

JUL 25 2011 FCC Mail Room

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

#### Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

J.A. RICE, ING.

Mark E. Powell Licensed Surveyor NO. OF CHARGE MEDILL.
LIMITED AND A BOOKE



P.O. Box 1288 Millersville, MD 21108 410-987-4286 FAX 410-987-3633

July 19, 2011

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554 Heceived & Inspected

JUL 2 5 2011

FCC Mail Room

#### Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

John W. Bryden

J/A. RIĆE, INC.

**Micensed Surveyor** 



P.O. Box 1288 Millersville, MD 21108 410-987-4286 FAX 410-987-3633

July 19, 2011

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554 Received & Inspected

JUL 25 2011

FCC Mail Room

#### Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

J.A. RICE, INC.

William C. Rice, Sr.

Licensed Surveyor

Mo. of Capies (193) <u>U</u>LUST A B C D E



JUL 25 2011

FCC Mail Room

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

ESE Consultants, Inc.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Greg Stewart

Professional Land Surveyor MD #21245



Received & Inspected
JUL 2 5 2011
FCC Mail Room

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

ESE Consultants, Inc.

7164 Columbia Gateway Drive, Suite 230 · Columbia, MD 21046

LEIABODE

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Mike Boyce

Professional Land Surveyor MD #21328

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554 JUL 25 2011 FCC Mail Room

Dear Chairman Genachowski:

As a member of the surveying profession in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Sara E. Pierce

3442 Santee Court

Nottingham, MD 21236

No. of Copies reco



JUL 25 2011

FCC Mail Room

Terrell A. Fisher, P.E., L.S. Earl D. Collins, P.E. Charles J. Crovo, Sr., P.E., L.S.

Paul W. Kriebel, P.E. Mark L. Robel, P.L.S. Aldo M. Vitucci, P.E.

JULY 20, 2011

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

的 自然等的增加的 RELPE

Dear Chairman Genachowski:

As a licensed Professional Engineer in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile ohone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.



No. of Copies rep'd D
LISTA B C D E

171 Church Lane North Brunswick, NJ 08902

JUL 25 2011

Tele: 732-422-6700 Fax: 732-940-8786

FCC Mail Room

www.gallassurvey.com

July 20, 2011

VIA U.S. MAIL

**Federal Communications Commission** 445 12th Street SW Washington, DC 20554

ATTENTION: Mr. Julius Genachowski

Chairman

RE: LightSquared, LLC FCC Granting

#### Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in New Jersey, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the Lband frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for New Jersey, but also for the United States as a whole. The members of the New Jersey Society of Professional Land Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Thank you for your time and consideration.

Sincerely,

Gregory S. Gallas, P.L. State of New Jersey

Professional and Surveyor #36244

, 11721 WOODMORE ROAD, SUITE 200 MITCHELLVILLE, MD 20721

TELEPHONE: 301-430-2000

FAX: 301-430-2001

E-MAIL: bendyer@bendyer.com





## BEN DYER ASSOCIATES, INC.

Engineers / Surveyors / Planners

Mr. Julius Genachowski, Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Received & Inspected

JUL 25 2011

July 19, 2011

**FCC Mail Room** 

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the lowpower GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Ben Dyer Associate

Michael J. Gates

Director of Surveys

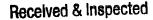
ELABODE

MITCHELLVILLE, MD 20721

FAX: 301-430-2001

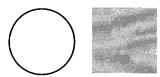
E-MAIL: bendyer@bendyer.com

TELEPHONE: 301-430-2000



JUL 25 2011

FCC Mail Room July 20, 2011



## BEN DYER ASSOCIATES, INC. Engineers / Surveyors / Planners

Mr. Julius Genachowski, Chairman Federal Communications Commission 445 12th Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Property Line Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the lowpower GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Ben Dyer Associates, Inc.

David Alan Hinch

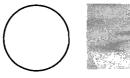
Property Line Surveyor

IELEFIN

TELEPHONE: 301-430-2000

FAX: 301-430-2001

E-MAIL: bendyer@bendyer.com



# **BEN DYER ASSOCIATES, INC.** Engineers / Surveyors / Planners

JUL 25 2011

Received & Inspected

FCC Mail Room

July 20, 2011

Mr. Julius Genachowski, Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Engineer in Maryland and a member of the Maryland Society of Surveyors, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Very Truly Yours,

Ben Dyer Associates, Inc.

James D. Hansford, Jr. P.E.

President

cc: Rona Goldberg

2/Genachowski.JDH.720.sac

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

JUL 25 2011 FCC Mail Room

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

No. of Copies 180'd\_

JUL 25 2011

FCC Mail Room

David Miller 2201 N Wolfsnare Dr Virginia Beach, VA 23454-2916

July 18, 2011

Federal Communications Commission 445 12th St., SW Room TWA325 Washington, DC 20554

Re: Comments regarding FCC IB Docket No. 11-109, Interference with GPS Signals

Dear Federal Communications Commission:

As you consider the conditional approval for LightSquared, I write to ask you to preserve the integrity of the nation's GPS system.

Last year, the federal government shut down the Loran navigation system, making recreational mariners solely reliant on GPS for all electronic navigation needs. Like so many other GPS users around the country, GPS is now integrated into our daily outings, and we look to the FCC to protect the integrity of the GPS signal.

Sincerely,

David Miller 7574817249

Dom Willer

7574817249



Received & Inspected Terrell A. Fisher, P.E., L.S. Earl D. Collins. P.E.

JUL 25 2011

Charles J. Crovo, Sr., P.E., L.S.

FCC Mail Room

JULY 20, 2011

Paul W. Kriebel, P.E. Mark L. Robel, P.L.S. Aldo M. Vitucci, P.E.

Mr. Julius Genachowski Chairman

Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

The Sincerely And Adaption of General Property of the Control of t

Frank Manolanea

No. of Copies recition

n auchelis parions

BEN BUT

15 GC 1

## J. A. RICE, INC.



P.O. Box 1288 Millersville, MD 21108 410-987-4286 FAX 410-987-3633 **Received & Inspected** 

July 19, 2011

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12th Street SW Washington, DC 20554

JUI 25 2011 FCC Mail Room

#### Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

J.A. RICE, INC.

julis G. Mice, Pre.

President

No. of Copies 1987

JUL 25 2011 FCC Mail Room Terrell A. Fisher, P.E., L.S. Earl D. Collins, P.E. Charles J. Crovo, Sr., P.E., L.S.

Paul W. Kriebel, P.E. Mark L. Robel, P.L.S. Aldo M. Vitucci, P.E.

JULY 20, 2011

FISHER, COLLINS
& CARTER, INC.

CIVIL ENGINEERING CONSULTANTS
and LAND SURVEYORS

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Engineer in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

in in the second of the case of the second s

province of the contract province

principal was a solution of the second of the second

n serverente di la partire della companya di la co La companya di la co

<u>र विकास के विकास के लिए</u>

g stockets at

## Highland Survey Associates, Inc.

4501 Fawn Grove Road Street, Maryland 21154



Phone 410-836-1238 Fax 410-836-1278

Received & Inspected

JUL 25 2011 FCC Mail Room

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Erich J. Schmitt, President Highland Survey Associates, Inc.

> Pio. of Capies res . List A.N.C.D.E

Ted Crum 4420 Moraga Ave Oakland, CA 94611-4236

July 12, 2011

Federal Communications Commission 445 12th St., SW Room TWA325 Washington, DC 20554

Received & Inspected

JUL 25 2011

FCC Mail Room

Re: Comments regarding FCC IB Docket No. 11-109, Interference with GPS Signals

Dear Federal Communications Commission:

As you consider the conditional approval for LightSquared, I write to ask you to preserve the integrity of the nation's GPS system.

I believe that the low-power signal received from the GPS Space Vehicles must be separated from more powerful terrestrial signals by a guardband much larger than is proposed by LightSquared.

Please consider with skepticism any suggestion that directional antennas or presumed future receivers will improve this situation. Microwaves reflect; frequency selectivity at microwave bands requires bulky cavities.

Sincerely,

Ted Crum, BSEE

510-654-7301

No. of Copies radio 0





## JUL 25 2011

## FCC Mail Room

## **Police Department**

301 South Main Excelsior Springs, Missouri 64024 Office of the Chief of Police

Phone: (816) 630-9500

July 12, 2011

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission (FCC)
445 12th Street S.W.
Washington, D.C. 20554
Page Community Deadlines Established Reports

Re: Comment Deadlines Established Regarding the LightSquared Technical Working Group Report, IB Docket No. 11-109

Dear Ms. Dortch:

I am writing today to voice my opinion that the FCC approve the deployment of a new 4G-LTE network that will enhance communications capabilities for first responders and others in the public safety community. This new wireless broadband network is proposed by LightSquared, a company that has experience providing communications services to federal, state and local fire, police, rescue and disaster-relief departments.

LightSquared provided satellite phones to FEMA after Hurricane Katrina, keeping vital lines of communications open when other telecom services were down. Last year, LightSquared created its Emergency Rapid Response Communications Team program (ERRT), which rapidly deploys to emergency and disaster locations in the U.S. and Canada. LightSquared existing technology was also recently used in Joplin, Missouri following that community's horrific tornado.

I understand that LightSquared has proposed a solution to resolve the vast majority of the interference issues with GPS signals. I sincerely hope the FCC will facilitate an additional solution for any remaining interference issues and allow LightSquared to deploy its network. It is time to upgrade the nation's wireless broadband capability and allow public safety providers access to this important technology.

incerely,

John McGovern Chief of Police

Excelsior Springs, Missouri

No. of Copies recid\_ Liza A B C D E

Phone: (816) 630-0240 • Fax: (816) 630-4104 • www.ci.excelsior-springs.mo.us



15450 Hangar Road | Kansas City, Missouri 64147 T: 816.524.8811 | F: 816.525.5027 www.kingstonenv.com

Received & Inspected

JUL 2 5 2011 FCC Mail Room

July 7, 2011

Ms. Marlene H. Dortch, Secretary Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Re:

LightSquared Subsidiary LLC Request for Modification of its Authority for an Ancillary Terrestrial Component; SAT-MOD-20101118-00239

### Dear Secretary Dortch:

As a company who does clean up in the wake of disasters, I am writing you today to ask for your support for LightSquared's plan to move forward with an innovative new wireless telecommunications network.

As you know, over the past decade, LightSquared has helped first responders complete their missions by providing innovative and reliable mobile satellite communications during emergencies. I know how important it is to have reliable communications having worked with FEMA following Hurricane Katrina. Thankfully, LightSquared was there too providing communications to all of us working to clean up after the disaster.

LightSquared's plans to add 4G service to their satellite network will give emergency personnel an unprecedented level of affordable and reliable communications, allowing all of us who work to get a community back on its feet, to be more effective and safe at times when natural disasters wipe out other telecom capabilities.

I appreciate the efforts of the FCC's technical working group to resolve interference issues and I am confident that with LightSquared's proposed move down the spectrum, any remaining interference can, <u>and should</u>, be resolved by both parties working together. This innovative new technology and GPS can co-exist and move our country's communications needs forward.

Sincerely,

William H. Worley

Director, Kingston Environmental Services, Inc.

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

JUL 2 5 2011 FCC Mail Room

Dear Chairman Genachowski:

As a licensed Property Line Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Anthony Wayne Wilkerson

Property Line Surveyor - Lsc# 54

No. of Coppositions ()



# Received & Inspected JUL 25 2011 FCC Mail Room

## **Agriculture and Natural Resources**

June 29, 2011

Marlene Dortch Office of the Secretary Federal Communications Commission 445 12<sup>th</sup> Street, Southwest Washington DC., 20554

## Dear Secretary Dortch:

As members of the Agriculture and Natural Resources Committee of the Ohio House of Representatives, we are writing today to ask that you reconsider the conditional waiver that the International Bureau of the Federal Trade Commission recently granted to LightSquared, a broadband network provider, that will enable it to operate high-speed broadband over frequencies normally used by low-powered satellite-based systems, such as GPS systems. Although we believe that high-speed broadband services have great potential to bring opportunity to rural Ohioans and we support efforts to expand broadband services, we do not think that opportunity should come at the expense of losing global positioning service (GPS).

In addition to the millions of consumers that use GPS services as part of their routine habits, we are especially concerned about the unintended negative impact that this could have on Ohio's more than 70,000 farms and Ohio's farm families, many of whom rely on GPS as an integral part of their farming business. Farmers use GPS to enhance their operations, for mapping field boundaries, roads, irrigation systems, precision planting, the application of chemicals and fertilizer and to address problem areas in crops such as weeds or disease. The accuracy of GPS is vital for farmers to create farm maps with precise acreage for field areas and road locations. GPS also allows farmers to accurately navigate to specific locations in the field, year after year, for the collection of soil samples. GPS also allows farmers to work during low-visibility field conditions such as rain, dust, fog and darkness.

Precision agriculture allows farmers to run efficient, economical and environmentally friendly operations. It allows farmers to collect accurate geographical data of the farm, which can then be used to apply site-specific treatments to increase agricultural production and protect the environment. It is the accuracy of the GPS that allows the farmer the ability to limit input costs, for example the cost and application of fertilizer, and run an efficient operation. Any disruption to the GPS has the potential to increase input costs of the operation and prevent Ohio's farmers from running efficient, economical and environmentally friendly operations.

Agriculture is Ohio's number one industry with a total economic impact of more than \$107 billion in our state. As such, we are extremely concerned with the FCC granting LightSquared this conditional permit until such time that we know that there will not be an unintended adverse impact on GPS functions. While the deployment of broadband services is important to the economic

NO.	of Copies recid	1
أغليا	ABODE	

development and stability to rural Ohio, the use of precision agriculture is also vital to Ohio's farmers as they continue to feed, fuel and clothe the world.

Thus, we respectfully request reconsideration of the order granting LightSquared conditional authority to proceed with the construction of high-powered cellular base stations, which will interfere with the frequency used by the GPS and ask that the FCC consider the following after reconsideration:

- Consider and give proper weight to incumbent spectrum user concerns that LightSquared's proposed use will create devastating interference to GPS receivers and licensed MSS-based augmentation signals.
- Consider LightSquared's request to operate a nationwide network of powerful cellular base stations in the L-band under different technical and operational rules as a reallocation of spectrum that merits public comment and participation in a transparent rulemaking.
- Establish an effective process to scientifically evaluate the interference impact of LightSquared's proposed operations on GPS services, as opposed to the present "working group" procedure. This "working group" procedure empowers LightSquared to set the agenda and direct the testing process, which fails to address many other requirements necessary to fairly and impartially evaluate proposed terrestrial operations in the L-band. This process should be open, impartial, deliberate and should encourage public participation from existing users and technical experts. The FCC should assume a more direct role in this process and contribute its institutional knowledge, engineering prowess and laboratory facilities. Adequate time should be allocated to this process, and public comment should be sought on test plans and results and at other critical junctures during the process of testing and evaluating new technology for the L-band.

We appreciate the work of the FCC to provide rural Ohio with high-speed broadband services, but not at the expense of losing GPS. Thank you for your consideration.

Sincerely:

Dave Hall, Chairman

Tim Derickson, Vice Chair

Teresa Fedor, Ranking Member

Trow Balderson

Jim Buchy

John Carey

Kathleen Clyde

Rex Damschroder	Dennis Murray
Bruce Goodwin	Sean O'Brien
Jou Lentile  Lou Gentile	Bole Peterson
Trace Maxwell Heard	Debbie Phillips
Casey Kozlowski	Margaret Ann Ruhl
Al Landis	Andrew Thompson
Dale Mallory	

## STATE OF KANSAS HOUSE OF REPRESENTATIVES

JUL 25 2011 FCC Mail Room

> STATE CAPITOL, ROOM 359-W TOPEKA, KANSAS 66612 paul.davis@house.ks.gov (785) 296-7630





## TOPEKA HOUSE DEMOCRATIC LEADER

July 13, 2011

Ms. Marlene H. Dortch, Secretary Federal Communications Commission 445 12th Street SW Washington, DC 20554

Re: Comment Deadlines Established Regarding the LightSquared Technical Working Group Report, IB Docket No. 11-109

Dear Ms. Dortch:

This past legislative session, my colleagues and I passed Kansas House Resolution 6027 urging modifications to The National Broadband Plan for the benefit of the residents of Kansas (copy enclosed). As you can see, the resolution states, "Children living in rural areas should have the same educational opportunities as their urban counterparts, and high-speed internet access is absolutely necessary to allow these students opportunities for advanced learning through distance education."

The digital divide that exists in Kansas give advantages to some children over others. Private-sector investment in broadband networks can bridge that divide. A specific example is LightSquared, a company that plans to roll out a next-generation broadband wireless network nationally within the next few years, bringing state-of-the-art high-speed Internet to wireless devices in rural Kansas – in some cases, for the first time.

LightSquared's network will combine traditional cell phone towers with satellite capabilities, providing a seamless backup in the case of natural disasters or other emergencies. And LightSquared's wholesale business model will allow a range of competitors to enter the market as wireless service providers, reselling LightSquared's service to businesses and consumer and reinvigorating competition in this key sector.

I understand the FCC is working with LightSquared and other stakeholders to assure that this innovative new network can move forward without interfering with existing telecommunications services. I hope you that you will expeditiously move forward and allow this network to deploy. Thank you for your consideration.

and Davis

Sincerely

No. of Caples repred Ust A B C D E

JUL 2 5 2011 FCC Mail Room

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

From the state of the state of

Sincerely,

Chris Alvey

Professional Land Surveyor - Lsc# 21269

The Honorable Julius Genachowski Chairman U.S. Federal Communications Commission 445 12th Street, SW Washington, D.C. 20554

JUL 2 5 2011
FCC Mail Room

Subject: IB Docket Number 11-109. FCC File No. SAT-Mod-20101118-00239, LightSquared Subsidiary LLC (LightSquared) Request for Modification of its Authority for an Ancillary Terrestrial Component

## Dear Chairman Genachowski:

I serve as the President of the Association of Unmanned Vehicle Systems International District of Columbia Chapter (AUVSI DC Capitol Chapter). We have approximately 350 members representing many, many organizations in and around the Washington, DC area.

As members of the unmanned systems community we are deeply concerned about a current waiver request from LightSquared to operate high-powered terrestrial transmitters on a radio frequency adjacent to the weak satellite-based Global Positioning System (GPS). Independent studies show that LightSquared's terrestrial operations could completely knockout GPS receivers for miles around each transmitter.

We ask that before the Federal Communications Commission grants LightSquared this waiver, more research and studies be done to assess the impact this initiative may have on GPS, and as a consequence the unmanned systems community.

As you know, all around the world, unmanned systems (air, ground, and maritime) rely on accurate, dependable GPS signals. The lack of a reliable GPS signal poses a serious threat to our public safety and national defense, and the potential expense of retrofitting or replacing affected GPS receivers would truly be an undue burden.

I ask that you take careful consideration of the potential harm LightSquared's proposed plan would have on the emerging field of unmanned systems, not to mention all other users of GPS. Thank you for the opportunity to submit comments for the official record.

Sincerely,

Jay McConville

President

**AUVSI DC Capitol Chapter** 

No. of Copies racid 0 List A B C D E